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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/831,209	05/07/2001	Derek Ness	UDL0155PUSA	1349

22045 7590 02/05/2003

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EXAMINER

BOYD, JENNIFER A

ART UNIT	PAPER NUMBER
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1771

DATE MAILED: 02/05/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/831,209

Applicant(s)

NESS ET AL.

Examiner

Jennifer A Boyd

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 May 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 and 16-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 and 16-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) ✓
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

1. Preliminary Amendment A, submitted as Paper No. 3 on May 7, 2001, has been entered. The Specification has been amended as requested. Claims 1 – 14 and 16 - 21 have been amended, while claim 15 has been cancelled. Thus, the pending claims are 1 – 14 and 16 – 21.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1 – 14 and 16 - 21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

4. Claim 1 recites that the fibrous layer allows “entrapped air to pass out of the material during processing of the material”. Which types of materials would not satisfy this condition? For the sake of examination at this point in time, the Examiner will interpret the fibrous layer as described in claim 1 to include any woven, non-woven, knitted or other fibrous material.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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6. Claims 1-8, 10-12, 14 and 16-21 are rejected under 35 U.S.C. 102(b) as being anticipated by Narita et al. (US 5,431,995).

As to claims 1, 2, 16, 17, 18 and 20, Narita teaches a molding compound comprising an inner layer, equated to the Applicant's "layer of resin material", constituted by a thermosetting resin and at least one cloth layer, equated to the Applicant's "fibrous layer", constituted by woven or non-woven fabric adhered on both surfaces of the inner layer. Narita teaches that the molding compound has a superior surface quality to be painted after molding, therefore could be used to make a surface layer as required by claims 16, 17 and 18.

As to claims 3, 4 and 12, Narita teaches that the cloth layers to be adhered on the surfaces of the inner layer are woven or non-woven fabric comprising aramid fibers or glass fibers (column 2, lines 48 – 55), therefore it can be formed from the same material or different materials.

As to claims 5, 6 and 19, Narita teaches that the compound is laminated and due to the pressure, the cloth layers will be partly compacted into the resin layer (column 3, lines 25 – 40) Narita does not mention the use of other adhesives so the layers must be held in place by the inherent tack of the resin as required by claim 5.

As to claim 7, Narita teaches that the molding material has two outer layers comprising polyethylene films as seen in Figure 1 indicated by reference numbers 8 and 8' which protects and covers the molding compound (column 4, lines 36 – 39) which is equated to the Applicant's "tackifier and binder".

As to claim 8, Narita teaches that the cloth layers to be used in the molding compound can be woven or non-woven fabrics which are continuous layers.

As to claims 10 and 11, Narita teaches that the resin paste can be a thermosetting resin such as epoxy, polyester, vinyl ester and phenol resins (column 2, lines 41 – 46).

As to claim 14, Narita teaches in Figure 1 that the inner resin paste (3) is applied to both sides of the cloth layers (5) creating two prepregs, one on each side of the inner layer (4).

As to claim 21, Narita teaches that the molding compound can be thermoset, or cured, by pressure molding for three minutes (column 5, lines 59 – 65 or column 3, lines 38 - 39).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 9 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Narita et al. (US 5,431,995) in view of De Jager (US 5,439,627).

Narita fails to disclose that the cloth layer, or “fibrous layer”, is discontinuous as required by claim 9 and that the fibers in the “fibrous layer” are unidirectional as required by claim 13.

De Jager teaches a process for manufacturing composites and laminates reinforced with continuous long fibers and/or filaments (Abstract) for high performance applications such as aerospace and automobiles (column 9, lines 4 – 22). De Jager teaches that the fibers or filaments can be oriented longitudinally (column 3, lines 58 – 64). Fibers which are oriented longitudinally would be considered to be in a discontinuous state because of the separation between the fibers.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to create the molding compound of Narita with at least one discontinuous “fibrous

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layer” as suggested by De Jager motivated by the expectation to combine the desirable intrinsic physical and chemical properties of the matrix with the strength and stiffness properties provided by the fibers or filaments (De Jager, column 1, lines 35 – 40).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to create the molding compound of Narita with uni-directionally oriented fibers or filaments as suggested by De Jager motivated by the expectation to have a molding composite with high performance properties due to the orientation of the fibers.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jennifer A Boyd whose telephone number is 703-305-7082. The examiner can normally be reached on Monday thru Friday (8:30am - 6:00pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner’s supervisor, Terrel Morris can be reached on 703-308-2414. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.


Jennifer Boyd
January 30, 2003